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ABSTRACT

The study investigated the influence of the teacher-pupil interaction on the learning of 50 fourth grade children in an 8 month remedial reading situation. The extent of gain in reading achievement was compared for the following experimental groups: Ss receiving formal teacher-pupil tutoring sessions; Ss receiving contract teacher-monitoring intervention; Ss receiving peer tutoring intervention; Ss receiving parent tutoring; and a waiting list (control) group. All groups gained more than 8 months on the Gray Oral Test but no one variable by itself discriminated among the groups. The Parent Tutoring group achieved significantly better than an average of the Teacher Tutoring and the Contract groups though there was some indication that the parent activities extended beyond the once a week direct intervention interaction to regular home reading periods. Both the teacher tutoring and peer tutoring groups showed positive reading achievement changes approaching significance. (DB)

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An Investigation of Teacher-Pupil Interaction on the Achievement of Retarded Readers

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An Investigation of Teacher-Pupil Interaction on the Achievement of Retarded Readers

We were concerned about the depressed reading levels of elementary school pupils and the inconsistencies which have resulted from attempting to remediate these problems. Attention to significant factors in remedial programs have traditionally included situational aspects of length of remediation and setting, subject characteristics of age and severity of reading retardation, curricula and methodological aspects, and measurement considerations of appropriate gain formulas.

This pilot study has investigated the impact of one important, but often neglected, influence upon the learning behavior of disabled readers, namely the interaction with an interested person/or teacher. It may generally be placed within the context of "affective factors" and their relationship to learning. We proposed that individualized appropriate remediation, which occurs in interaction with an interested teacher-figure, may be effective for the elementary school pupil, regardless of specific reading curriculum or method. It was anticipated that children receiving such remedial treatment would perform better than disabled readers not receiving such remedial teaching. Further, if the interpersonal process in a person's learning predominates, then it should be possible to vary the teacher/pupil dyad without affecting gains in reading achievement.

It should be noted that this study took place from the CCNY Reading Center which has a long history of remedial efforts with disabled readers. Working with two adjacent public schools, 50 fourth grade children who had been identified from citywide reading tests as having scores of at least one grade below actual grade placement, were located for the project. The pupils were assigned to either one of four treatment groups for remediation or to a control group. The teaching format of child and teach er was varied in four different ways. From our study we were looking for answers to several specific questions concerning the following:

1. The gain of retarded readers in these groups as compared to the Control group. 2) The differential gain in reading scores among the groups. 3) Attitude-towards-reading change among the groups. 4) And finally, the utility of developing a model for a larger scale study of the role of teacher-pupil interaction.

The dependent variables were the results from the Gray Oral Reading Test and the various acores from the California Achievement Test (1970) Reading Level II. Attitudes were measured by the Heathington Primary Scale. The project ran for eight months, 49 children were able to continue through the duration of the investigation, and remediation occurred for the equivalence of two fifty-minute sessions per week. In general, the remediation which was provided

can be described as eclectic in method and followed a diagnostic/prescriptive sequence whereby remedial work was chosen which was specific to the child's needs. We performed additional reading diagnosis with a variety of tests for all children and used materials and instruction to suit their identified problems.

The teaching groups were as follows:

1. A conventional tutor/group model where the child was taught individually at the CCNY Reading Center. Graduate students completing a practicum in remedial teading were the instructors and the Principal Investigator was the supervisor.

2. A Contract group whereby the child signed a contract to complete a certain amount of reading practice. The child came to the CCNY Center to be assigned reading homework and to have his/her reading monitored. The homework was completed outside of the Center and brought back for correction at the next session.

3. Sessions at one of the schools with parents, who during the first part of the session were instructed on how to help their children. Later on in the session the parents actually practiced with their own children, under supervision. These meetings were initially held twice a week and then were collapsed into one long weekly session.

4. A Peer tutoring group where 10 sixth grade adequate readers worked twice a week with the fourth grade group. The

sixth graders received training and supervision. The Control group was tested and placed on the waiting list for the CCNY Reading Center for the next year.

Reading gain was measured by pre-and posttest change. For the statistical treatment, a multivariate analysis of covariance was used together with post hoc comparisions. Results indicated that essentially all groups gained on all the reading measures. All groups gained more than eight months (the length of the project) on the Gray Oral Test while several gained more than this amount on all measures. However, in spite of a significant multivariate statistic of 7,5324, no one variable by itself discriminated among the groups. Thus it cannot be said that four groups gained more than the control group or that any one group performed better than the others. However, there was some difference among combinations of the groups. Specifically, the Parent group achieved significantly better than an average of the Tutor/Pupil and the Contract groups. We were not convinced that the success of the Parent group was solely the result of once-a-week direct interaction of mother/child, nor was this group designed to do this. Reports indicated that related reading activities extended into the home and there were descriptions of parents insisting on regular home reading periods. In addition, many parents asked to bring books home which the whole family seemed to enjoy.

It was not unexpected that the Contract group did poorly since we experienced much difficulty in the operation

of this lesson format and in making sure that homework assigned was completed. On the other hand, it was surprising that the tutor/pupil model, which is the prototype for formal remedial instruction, did not result in higher reading gains.

As has been indicated, not all the reading measures were equally discriminant of change in reading performance. The Gray Oral Reading Test which measures decoding ability not comprehension, and whose administration involves interaction between adult and child rather than the child reading silently proved to be more sensitive to the reading gain. It should be noted that remedial instruction was directed towards both decoding and reading comprehension but the Gray scores suggest that the efforts at decoding practice might have been more effective.

A univariate analysis of convariance was used to evaluate pre- and posttest scores on the reading attitude survey. The differences among the groups did not prove significant although the Tutor/pupil group and the Peer group showed positive changes approaching significance. These were the groups which involved the greatest amount of direct interaction between pupil and teacher timewise during the sessions. Interestingly, the Parent group, although gaining more in reading, did not indicate that they enjoyed reading more. It was possible that additional encouragement and practice involving their mothers did not result in making

reading more fun for children. These were traditional mothers, mainly Hispanic, who were very serious about reading activities and objected to such fun and frivolities as reading games or funny stories, etc. They had indicated that it was important to read better mainly in order to get better school grades.

We felt that this research model with some modifications did lend itself for development as a larger scaled investigation. We would make the following changes. 1) Select children from a larger pool of subjects so that true random sampling would be possible. Use only one measure as a dependent variable, or else use children who were at least one grade behind in reading on all measurement instruments, which we were unable to do. 2) Eliminate the Contract group. This group could not easily work independently and frequently homework was lost and interaction with the teacher was minimal. This model for this age range was not effective. 3) The Control group should work on programmed practice materials rather than being a waiting-list group. This would ensure that a comparable amount of reading work was being carried on by this group of children. 4) Finally, the use of a simple pretest posttest method of calculating gain in reading should be reconsidered. There are more spohisticated and sensitive gain formulas which might be used.

The affective factors in reading gain have often been ignored in the serious efforts to upgrade children's reading performance. Given the small size of our sample, we feel that enough suggestions of significance have been indicated to warrant extended study of the variable of teacher/pupil interaction and we look forward to continued and fruitful investigation in this area.

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Table 1

Means And Standard Deviations of Gain Scores for all Groups on Dependent Variables.

Variable	Measure	Group A	Group B	Group C	Group D	Group E
C.A.T. Vocabulary	Mean	.260	-.290	.956	1.589	.820
	S.D.	.738	.863	.714	1.339	1.174
C.A.T. Comprehension	Mean	.650	.460	.889	.822	1.250
	S.D.	.977	.552	1.019	.973	.837
Total Reading C.A.T.	Mean	.440	.280	.878	.700	.780
	S.D.	.797	.410	.620	.464	.735
Gray Oral	Mean	1.230	.840	2.056	2.278	1.700
	S.D.	.871	.782	.709	.628	.678

Note: Scores are in grade equivalents.

Table 2

Test of Significance of Effect for Each Dependent Variable Separately.

Source	Test-Statistic	Critical-Value
Vocabulary	3.3781	5.6396
Comprehension	1.2785	5.6396
Total - Reading	2.6320	5.6396
Gray - Oral	5.5394*	5.6396

*Significant at the .10 level.

Table 3

Means and Standard Deviations of Scores for all Groups on Change in Attitude Scales

	Group A	Group B	Group C	Group D	Group E
Mean	7.10	-1.10	5.333	-5.222	-4.000
S.D.	13.008	16.656	10.954	13.818	13.711

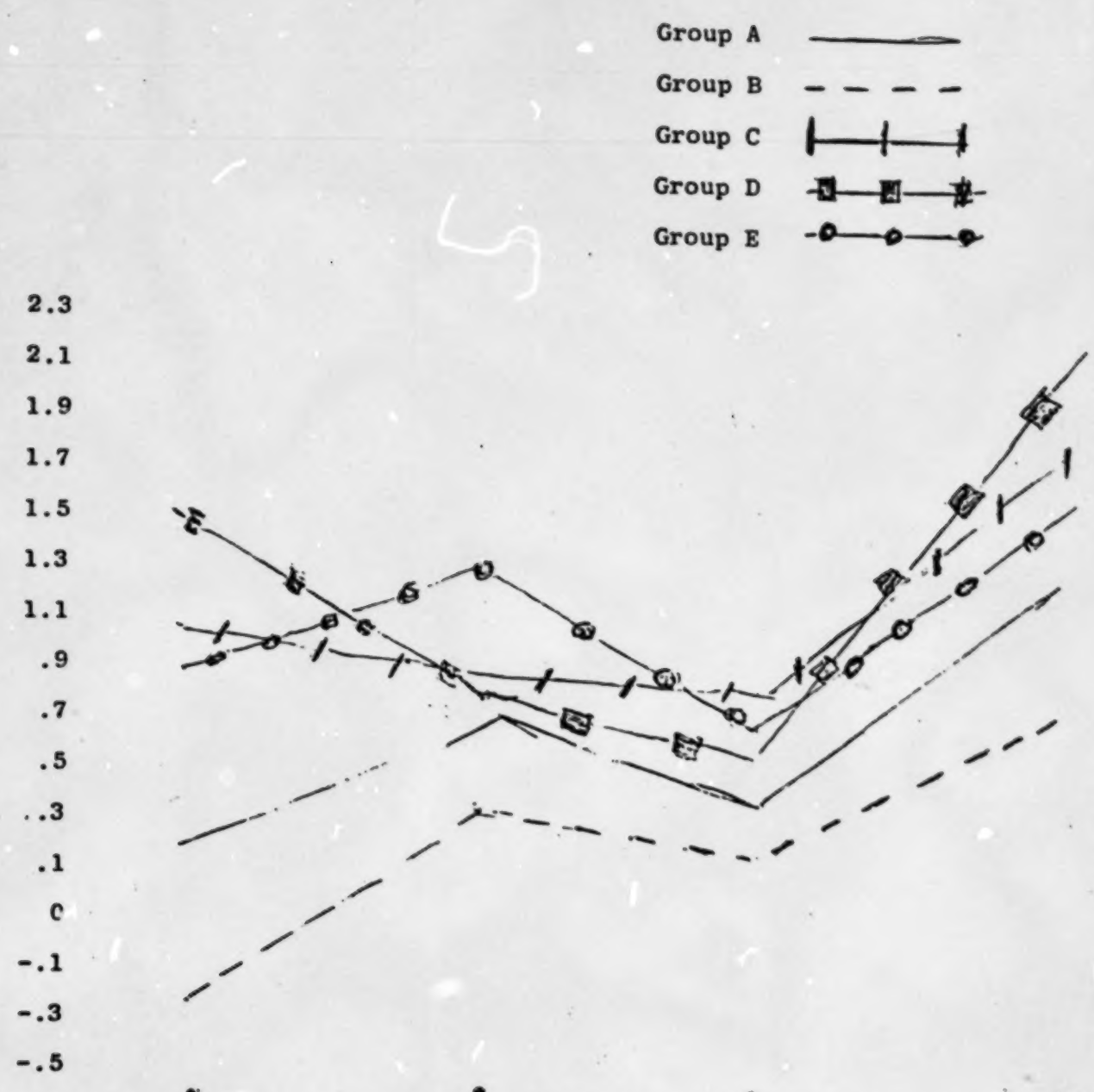

Figure 1: Average Gain Scores for all Five Groups on Four Dependent Measures.

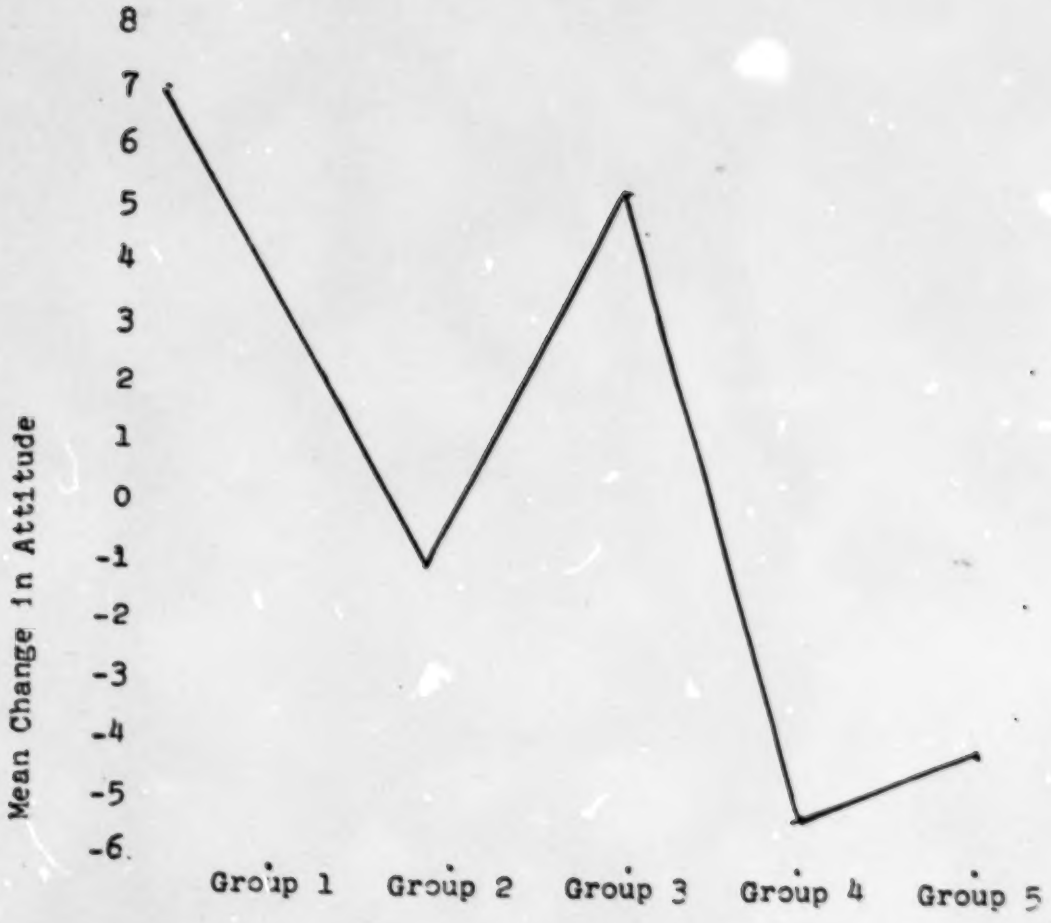

Figure 2: Mean Change in Attitudes Toward Reading for all Five Groups.

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